This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-14 (canceled)

Claim 15 (new): A method for coding positions of data elements in a data structure, the method comprising:

associating position codes with the data elements in a pre-determined sequence;

selecting the position codes such that, if lengths of the position codes are unlimited, any desired number of other position codes may be allocated for positions of other data elements between positions of two data elements in order to code positions of other data elements; and

providing that the position codes represent rational numbers.

Claim 16 (new): A method for coding positions of data elements in a data structure as claimed in Claim 15, wherein at least one of a first position code and a last position code of the data elements is selected such that other position codes may be inserted at least one of before the first position code and after the last position code.

Claim 17 (new): A method for coding positions of data elements in a data structure as claimed in Claim 16, wherein at least one of the first position code is not equal to 0 and the last position code is not equal to 1.

Claim 18 (new): A method for coding positions of data elements in a data structure as claimed in Claim 15, wherein the position codes include binary data.

Claim 19 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 18, wherein the position codes include at least one data bit n-tuples and at least one extension bit, a quantity of the at least one extension bit corresponding to a quantity of the at least one data bit n-tuples.

Claim 20 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 15, wherein the data structure forms part of a data tree.

Claim 21 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 15, wherein the data elements include data codes for the data elements of a document.

Claim 22 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 21, wherein the document is an XML document.

Claim 23 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 21, wherein the data codes for the document are generated with an MPEG coding method.

Claim 24 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 23, wherein the coding method includes a standardized MPEG-7 coding method.

Claim 25 (new):   A method for coding positions of data elements in a data structure, the method comprising:
    associating position codes with the data elements in a pre-determined sequence;
    selecting the position codes such that other position codes may be allocated for positions of other data elements between positions of two adjacent data elements so as to code positions of the other data elements, with at least one other

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position code being longer than a longest of the position codes of the two adjacent data elements; and

      providing that the position codes represent rational numbers.

Claim 26 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 25, wherein at least one of a first position code and a last position code of the data elements are selected such that other position codes may be inserted at least one of before the first position code and after the last position code.

Claim 27 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 26, wherein at least one of the first position code is not equal to 0 and the last position code is not equal to 1.

Claim 28 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 25, wherein the position codes include binary data.

Claim 29 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 28, wherein the position codes include at least one data bit n-tuple and at least one extension bit, a quantity of the at least one extension bit corresponding to a quantity of the at least one data bit n-tuple.

    Claim 30 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 25, wherein the data structure forms part of a data tree.

Claim 31 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 25, wherein the data elements include data codes for the data elements of a document.

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Claim 32 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 31, wherein the document is an XML document.

Claim 33 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 31, wherein the data codes for the document are generated with an MPEG coding method.

Claim 34 (new):   A method for coding positions of data elements in a data structure as claimed in Claim 33, wherein the coding method includes a standardized MPEG-7 coding method.

Claim 35 (new):   A device for coding positions of data elements in a data structure, comprising:

parts for providing that position codes be associated with the data elements in a pre-determined sequence;

parts for selecting the position codes such that, if lengths of the position codes are unlimited, any desired number of other position codes may be allocated for positions of other data elements between positions of two data elements in order to code positions of the other data elements; and

parts for providing that the position codes represent rational numbers.

Claim 36 (new):   A data transmission system for both coding and decoding position codes of data elements in a data structure, comprising:

a device for coding positions of the data elements in the data structure, wherein the device effects associating position codes with the data elements in a pre-determined sequence, selecting the position codes such that, if lengths of the position codes are unlimited, any desired number of other position codes may be allocated for positions of the other data elements between positions of two data elements in order to code positions of other data elements, and providing that the position codes represent rational numbers; and

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a device for decoding the position codes of the data elements in the data structure.